

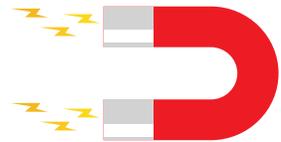


FISHING WITH MAGNETS

Have you ever wondered what sticks to a magnet and why? In this activity you'll go "fishing" to explore **magnetism**, a force of nature like gravity and electricity that pulls certain types of metals together.

THE GOAL:

Make predictions about which objects will be attracted to magnets, then test them to find out which predictions were accurate.



WHAT YOU NEED:

- Magnet
- Pencil or craft stick
- String
- Tape
- Simple household objects like marbles, paperclips, coins, nails, rubber bands, etc.
- Paper and pencil to record your observations

DID YOU KNOW?

The Mvskoke word for 'Fish' is Rvro (thuh-tho).

Ancestors of modern day Muscogee citizens lived in Georgia, Alabama, Tennessee, South Carolina, and Florida, and fished from area rivers, including the Mississippi.

TRY THIS:

1. Make a magnetic fishing rod by tying a piece of string to a pencil or craft stick. Tape a magnet to the other end of the string.
2. Prepare to go fishing. Gather a variety of small household objects (examples: paper clip, rubber band, spoon, coin, pencil, marble). Put these items in a container or lay them out on a table.
3. Make some predictions. Pick out two things that you think will stick to the magnet. Why do you think those objects will stick? Is there anything you think won't stick?
4. Go fishing! Drag your magnet over the items and see what sticks. Look back over your predictions. Were they correct? What do you notice about the items that were attracted to the magnet? What do they have in common?



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WHAT DID YOU DISCOVER?

Based on what you've observed, can you predict what other items around the room will stick to the magnet? Continue to test the magnet on other objects such as window or door frames, door knobs, furniture, and other items to confirm if your theory is correct about what is attracted and what is not attracted to a magnet.

Scientists make predictions, observe, test, record, and share their findings to further our understanding of science.

Like a scientist, you should record and share what you have discovered. On a piece of paper make a t-chart. On one side of the chart, write or draw a picture of what stuck to the magnet and, on the other side, record what did not stick. When you are finished, share and compare your results with a friend. What do you notice about the results? What do you wonder about now?

T-Chart

ATTRACTED TO MAGNET	NOT ATTRACTED TO MAGNET
	

WHAT IS A MAGNET?

A **magnet** is an object that attracts and repels other magnets and metals. Everything in the world (even you!) is made up of atoms, which are too small for us to see with our eyes. These atoms contain even smaller particles called electrons. Electrons spin and, depending on how they spin, can create a **magnetic force** that attracts or repels.

Metals like iron, cobalt, and nickel are **magnetic**, meaning they are attracted to magnets. Other metals like copper, silver, and gold are repelled by them.

A magnet has two sides, called a north pole and south pole. If you push the same poles of two magnets together, they will pull away. If you push different poles of two magnets together, they will pull apart.

READ ALL ABOUT IT!

Push and Pull! Learn about Magnets
by Julia Vogel

Magnet Max
by Monica Lozano Hughes

Joshua and the Biggest Fish
by Kaylee Morrison





FISHING WITH MAGNETS CON'T

MORE TO EXPLORE:

- If you have two magnets, try pushing them together. How does it feel when you bring them close together? Do you feel a push or pull? Does it feel different when you hold different sides together?
- Make your own fish pond. Draw some fish on a piece of paper, color them, and cut them out. On each fish, write a number or word. Put a paperclip on each fish. Then decorate another sheet of paper to look like a pond. Put the fish in the pond and go fishing with your magnetic rod. Read the word on each fish or add the numbers together to improve your reading or math skills.

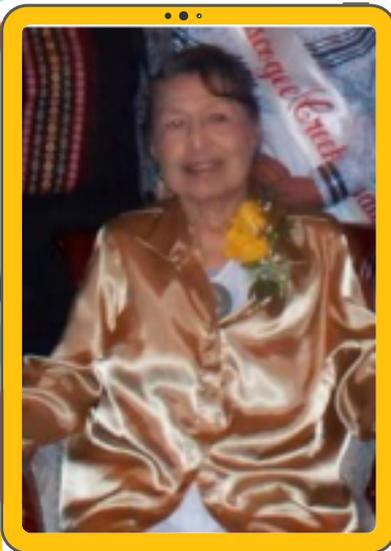
FOOD FOR THOUGHT!

Some of the most common fish in the Mississippi River are bass and catfish.

Do you ever eat these fish? What is your favorite kind of fish to eat?



CITIZEN SPOTLIGHT: MARGARET MAULDIN



Credit: Muscogee Nation

Margaret Mauldin is a citizen of the Muscogee Nation and is best known for her work documenting Mvskoke, the language of the Musgoee people. She worked to preserve the Mvskoke language through teaching, recording hymns, and creating the Mvskoke-to-English dictionary, called "A Dictionary of Creek/Muskogee."

Mvskoke is highly descriptive and made up of 19 letters modeled after the English alphabet. Native peoples lost their language because of U.S. government programs designed to assimilate Native people into European culture, such as separating children from their family and culture so they could attend boarding school. Today, we recognize the importance of retaining and celebrating the heritage of Native peoples. The important work of Margaret Mauldin and others has helped preserve the heritage of the Muscogee people and pass that heritage on to future generations.

ACADEMIC STANDARDS:

This activity connects to the following Oklahoma Academic Standards:

- K-PS2-2 Motion and Stability: Forces and Interactions
- 2-PS1-1 Structure and Properties of Matter

THIS KIT WAS MADE POSSIBLE BY:

This activity is made possible by a generous award from the Muscogee Nation Department of Education STEM Grant Program.



THE MUSCOGEE NATION